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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|------------------------|---------------------|------------------|
| 10/589,088 | 05/02/2007 | George William Adamson | 126866-00008 | 5488 |
| 7590 | 03/30/2009 | | EXAMINER | |
| Jonathan P. O'Brien Miller, Canfield, Paddock and Stone 444 West Michigan Avenue Kalamazoo, MI 49007 | | | KLEMANSKI, HELENE G | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1793 | |
| | | | MAIL DATE | |
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| | | | DELIVERY MODE | |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|------------------------|-------------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/589,088 | ADAMSON, GEORGE WILLIAM | |
| | Examiner | Art Unit | |
| | Helene Klemanski | 1793 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on ____.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-70 is/are pending in the application.
 - 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) Claim(s) 35-52 is/are allowed.
- 6) Claim(s) 1-8, 10-23, 25-30, 34, 53-60, 62-67 and 70 is/are rejected.
- 7) Claim(s) 9, 24, 31-33, 61, 68 and 69 is/are objected to.
- 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 10 August 2006 is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ . |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/5/07</u> . | 6) <input type="checkbox"/> Other: ____ . |

DETAILED ACTION

Information Disclosure Statement

1. The references cited in the Search Report dated April 21, 2005 have been considered.

Oath/Declaration

2. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

The correct filing date of PCT/US2005/04105 is February 10, 2005. The Declaration filed May 2, 2007 has the filing date of PCT/US2005/04105 as February 12, 2004. Please file a new Declaration with the correct filing date.

Claim Objections

3. Claims 2, 7, 17, 22, 36, 41, 54 and 59 are objected to because of the following informalities: In claim 2, line 3, the term "Wherein" should be replaced with the term "wherein; also in claim 2, line 4, the term "Each" should be replaced with the term "each" and the term "Halogen" should be replaced with the term "halogen"; lastly in claim 2, line 6, the term "Each" should be replaced with the term "each"; in claim 7, line 4, the term "Butyl" should be replaced with the term "butyl" and the comma between the term "aminopropyltrimethoxysilane" and the number "3" should be replaced with the

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term "or"; in claim 17, line 4, the term "Wherein" should be replaced with the term "wherein; also in claim 17, line 5, the term "Each" should be replaced with the term "each" and the term "Halogen" should be replaced with the term "halogen"; lastly in claim 17, line 7, the term "Each" should be replaced with the term "each"; in claim 22, line 4, the term "Butyl" should be replaced with the term "butyl" and the comma between the term "aminopropyltrimethoxysilane" and the number "3" should be replaced with the term "or"; in claim 36, line 4, the term "Wherein" should be replaced with the term "wherein; also in claim 36, line 5, the term "Each" should be replaced with the term "each" and the term "Halogen" should be replaced with the term "halogen"; lastly in claim 36, line 7, the term "Each" should be replaced with the term "each"; in claim 41, line 4, the term "Butyl" should be replaced with the term "butyl" and the comma between the term "aminopropyltrimethoxysilane" and the number "3" should be replaced with the term "or"; in claim 54, line 4, the term "Wherein" should be replaced with the term "wherein; also in claim 54, line 5, the term "Each" should be replaced with the term "each" and the term "Halogen" should be replaced with the term "halogen"; lastly in claim 54, line 7, the term "Each" should be replaced with the term "each" and in claim 59, line 4, the term "Butyl" should be replaced with the term "butyl" and the comma between the term "aminopropyltrimethoxysilane" and the number "3" should be replaced with the term "or";. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 13, 28, 47 and 65 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 13, 28, 47 and 65, the phrase "selected from" is considered indefinite since this is improper Markush language. It is the examiner's position that other materials could be present in the Markush group that were not intended by applicants by the use of the phrase "selected from" since this phrase does not exclude other materials. The examiner suggests the language "selected from the group consisting of" in place of this phrase.

Also in claims 13, 28, 47 and 65, the terms "Sepisol Fast Blue 2BR", "Sepisol Fast Blue MBSN", "Methyl Violet Base BP", "Sepisol Fast Blue ARNF", "Sepisol Fast Blue 85219", "Sepisol Fast Violet 881239" and "Sepisol Fast Violet 85152" are considered indefinite since the relationship between a trademark and the product it identifies is sometimes indefinite, uncertain or arbitrary. The formula or characteristics of the product may change from time to time and yet it may be sold under the same trademark. In the claims, every element or ingredient of the indelible ink solution should be set forth in positive, exact, intelligible language, so that there will be no uncertainty as to what is meant. Arbitrary trademarks which are liable to mean different things at the pleasure of manufacturers do not constitute such language. See Ex parte

Kattwinkel, 12 U.S.P.Q. 11 and MPEP 608.01(v). The examiner suggests the deletion of these terms to overcome this rejection.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-8, 13, 15-23, 28, 30, 34, 53-60, 65, 67 and 70 are rejected under 35 U.S.C. 102(b) as being anticipated by Parkinson (US 4,045,397).

Parkinson teaches an ink composition for ink jet printing onto glass or ceramics surfaces comprising 2-30% by weight of a binder such as a novolac resin, 0.5-5% by weight of a dye such as a triarylmethane dye, 0.04-5% by weight of an organo silicon compound such as gamma-aminopropyltriethoxy silane and N-aminoethylaminopropyltrimethoxy silane and an alcohol solvent with or without a small amount of water. The ink may also be used as a writing or printing ink other than in ink jet processes and on surfaces other than ceramics. Parkinson further teaches that a permanent image of good quality is formed on the surfaces. See col. 2, lines 4-21 and lines 47-61, col. 3, lines 3-12 and lines 40-51, examples 1 and 2 and claims 1 and 6-13. The ink composition as taught by Parkinson appears to anticipate the present claims.

8. Claims 1-8, 13-23, 28-30, 34, 53-60, 65-67 and 70 are rejected under 35 U.S.C. 102(b) as being anticipated by Deng (US 5,652,286).

Deng teaches an ink jet ink composition for printing onto glass, PET and aluminum surfaces comprising an organic solvent, 2-12% by weight of a dye such as Solvent Violet 8, a polyurethane binder, a silicone resin and 0.1-5% by weight of a silane such as (4-aminopropyl)triethoxysilane and [γ -(β -aminoethylamino)propyl]trimethoxysilane. Deng further teaches that the ink jet ink composition may contain optional additives. See col. 2, lines 64-66, col. 3, lines 5-17 and lines 25-28, col. 5, lines 6-48, col. 6, lines 26-42, col. 7, lines 7-7, example 1 and claims 11, 8, 9 and 22. The ink jet ink composition as taught by Deng appears to anticipate the present claims.

It is the examiner's position that the ink jet printing systems in the above references contain pen reservoirs (i.e. ink cartridges in the ink jet heads) that hold the inks until they are ready to be printed. Furthermore, it is the examiner's position that the ink jet printing systems of the above references are also considered writing instruments. Therefore, the above references encompass applicant's claims relating to pen reservoirs and writing instruments.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

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10. Claims 10-12, 25-27 and 62-64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deng (US 5,652,286) in view of Kraiter et al. (US 6,413,306).

Deng is cited and relied upon for the above stated reasons. Deng fails to teach the addition of fumed silica as a rheological modifier as claimed by applicants.

Kraiter et al. teach a pigment dispersion useful for forming coating compositions comprising a pigment, a non-aqueous carrier, a polymer and may further contain conventional additives such as fumed silica as a rheology control agent. See col. 1, lines 53-55 and col. 6, lines 19-23.

Therefore, in view of the combined teachings of Deng and Kraiter et al., it would have been obvious to one having ordinary skill in the art to have modified the ink jet ink composition of Deng by adding the fumed silica of Kraiter et al. to improve the rheology of the ink jet ink composition.

Allowable Subject Matter

11. Claims 35-52 are allowed.

12. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record fails to teach or fairly suggest a ball point pen comprising a housing containing a ball point pen cartridge, wherein the ball point pen cartridge includes a ball point tip and the indelible ink solution as claimed by applicants.

13. Claims 9, 24, 31-33, 61, 68 and 69 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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14. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record fails to teach or fairly suggest an indelible ink solution contains between 15 to about 20 weight percent of one or more amino silane coupling agents or a pen reservoir wherein the housing is capped and pressurized to between about 3 to about 40 psig or is pressurized with a gas comprising at least 70% nitrogen as claimed by applicants.

Conclusion

The remaining references listed on forms 892 and 1449 have been reviewed by the examiner and are considered to be cumulative to or less material than the prior art references relied upon in the above rejections.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helene Klemanski whose telephone number is (571) 272-1370. The examiner can normally be reached on Monday-Friday 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Helene Klemanski/
Primary Examiner, Art Unit 1793